

Maryland Historical Trust

Maryland Inventory of Historic Properties number: PG:87B-37

Name: 16060/MD 381 over SWANSON CRR

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridge received the following determination of eligibility.

MARYLAND HISTORICAL TRUST	
Eligibility Recommended <u> X </u>	Eligibility Not Recommended <u> </u>
Criteria: <u> A </u> <u> B </u> <u> C </u> <u> D </u>	Considerations: <u> A </u> <u> B </u> <u> C </u> <u> D </u> <u> E </u> <u> F </u> <u> G </u> <u>None</u>
Comments: _____	

Reviewer, OPS: <u>Anne E. Bruder</u>	Date: <u> 3 April 2001 </u>
Reviewer, NR Program: <u>Peter E. Kurtze</u>	Date: <u> 3 April 2001 </u>

MARYLAND INVENTORY OF HISTORIC BRIDGES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

MHT No. PG: 87B-37

SHA Bridge No. 16060 Bridge name MD 381 over Swanson Creek

LOCATION:

Street/Road name and number [facility carried] MD 381

City/town Brandywine at Charles County Line Vicinity X

County Prince George's

This bridge projects over: Road Railway Water X Land

Ownership: State X County Municipal Other

HISTORIC STATUS:

Is the bridge located within a designated historic district? Yes No X

National Register-listed district National Register-determined-eligible district

Locally-designated district Other

Name of district

BRIDGE TYPE:

Timber Bridge :

Beam Bridge Truss -Covered Trestle Timber-And-Concrete

Stone Arch Bridge

Metal Truss Bridge

Movable Bridge :

Swing

Vertical Lift

Bascule Single Leaf

Retractable

Bascule Multiple Leaf

Pontoon

Metal Girder :

Rolled Girder

Plate Girder

Rolled Girder Concrete Encased

Plate Girder Concrete Encased

Metal Suspension

Metal Arch

Metal Cantilever

Concrete X:

Concrete Arch Concrete Slab X Concrete Beam Rigid Frame

Other Type Name

DESCRIPTION:Setting: Urban _____ Small town _____ Rural _____ X**Describe Setting:**

Bridge No. 16060 carries MD 381 over Swanson Creek in Prince George's County and crosses the line into Charles County. MD 381 runs in a north-south direction, and the creek flows in an easterly direction. The structure is located in a rural section of Prince George's County.

Describe Superstructure and Substructure:

Bridge No. 16060 is a two-lane two span concrete slab bridge with a clear span of 20'-0". The total bridge length is 45'. The superstructure consists of concrete parapets and a concrete slab with a bituminous wearing surface. The parapets, with the exception of the northwest panel, are open. The northwest panel has been patched and is solid. The parapets have an articulated concrete coping stone and end blocks. The approaches all have guardrails which are attached to the parapets. The substructure comprises flared concrete abutments, a pier, and flared wingwalls. The pier and wingwalls are decorated with molded champering. The exact date of construction for this structure is unknown. In a previous survey, the bridge was given a construction date of circa 1930, and the bridge does correspond to standard SHA Detail Sheets for a 20' concrete slab from 1930. An inspection report from 1994, however, indicates the bridge was built in 1959. Available evidence suggests the bridge was constructed circa 1930.

The most recent inspection of this bridge took place in April 1995. Its condition was assessed as follows. Both abutments are in good condition. The wingwalls have fine map cracking. The parapet has vehicle damage, cracks, and minor spalling. There are several longitudinal cracks in the slab. The pier has cracking and efflorescence. There is major scour and undermining under the pier with the entire footing exposed.

Discuss Major Alterations:

The northernmost panel of the west parapet has been replaced with a solid panel. When this repair was undertaken, however, is not noted in the bridge file at the SHA. The 1994 inspection report notes that the approaches have been patched, and the 1992 inspection report states that the west end of the pier appears to have been repaired. No other repairs or alterations, the extent thereof, or when they took place are mentioned.

HISTORY:WHEN was the bridge built (actual date or date range) circa 1930This date is: Actual _____ Estimated X

Source of date: Plaque _____ Design plans _____ County bridge files/inspection form _____

Other (specify) Maryland State Highway Administration bridge files**WHY was the bridge built?**

Statewide road improvement programs and local transportation needs

WHO was the designer?

State Roads Commission

WHO was the builder?

State Roads Commission

WHY was the bridge altered?

The parapet was repaired for unknown reasons. Similarly the extent of any further alterations/repairs is unknown.

Was this bridge built as part of an organized bridge-building campaign? Yes. This bridge was constructed as a part of post World War I improvements to secondary roads in Maryland.

SURVEYOR/HISTORIAN ANALYSIS:

This bridge may have National Register significance for its association with:

- A - Events _____ B- Person _____
C- Engineering/architectural character _____

This bridge does not have National Register significance.

Was the bridge constructed in response to significant events in Maryland or local history?

Reinforced concrete slab bridges are a twentieth century structure type, easily adapted to the need for expedient engineering solutions. Reinforced concrete technology developed rapidly in the early twentieth century with early recognition of the potential for standardized design. The first U.S. attempt to standardize concrete design specifications came in 1903-04 with the formation of the Joint Committee on Concrete and Reinforced Concrete of the American Society of Civil Engineers.

Maryland's road and bridge improvement programs mirrored economic cycles. The first road improvement program of the State Roads Commission was a 7 year program, starting with the Commission's establishment in 1908 and ending in 1915. Due to World War I, the period from 1916-1920 was one of relative inactivity; only roads of first priority were built. Truck traffic resulting from war-related factories and military installations generated new, heavy traffic unanticipated by the builders of the early road system. From 1920 to 1929, numerous highway improvements occurred in response to the increase in Maryland motor vehicles from 103,000 in 1920 to 320,000 in 1929, with emphasis on the secondary system of feeder roads which moved traffic from the primary roads built before World War I. After World War I, Maryland's bridge system also was appraised as too narrow and structurally inadequate for the increasing traffic, with plans for an expanded bridge program to be handled by the Bridge Division, set up in 1920. In 1920 under Chapter 508 of the Acts of 1920 the State issued a bond of \$3,000,000.00 for road construction; the primary purpose of these monies was to meet the state obligations involving the construction of rural post roads. The secondary purpose of these monies was to fund [with an equal sum from the counties] the building of lateral roads. The number of hard surfaced roads on the state system grew from 2000 in 1920 to 3200 in 1930. By 1930, Maryland's primary system had become inadequate to the huge freight trucks and volume of passenger cars in use, with major improvements occurring in the late 1930s. Most improvements to local roads waited until the years after World War II.

With a diverse topographical domain encompassing numerous small and large crossings, Maryland engineers quickly recognized the need for expedient design and construction.

In the early years, there was a need to replace the numerous single lane timber bridges. Walter Wilson Crosby, Chief Engineer stated in 1906, "The general plan has been to replace these [wood bridges] with pipe culverts or concrete bridges and thus forever do away with the further expense

of the maintenance of expensive and dangerous wooden structures". Within a few years, readily constructed standardized bridges of concrete were being built throughout the state.

The creation of standard plans and a description of their use was first announced in the 1912-15 Reports of the State Roads Commission whereby bridges spanning up to 36 feet were to use standardized designs.

Published on a single sheet, the 1912 Standard Plans included those structures that were amenable to such an approach: slab spans, (deck) girder spans, box culverts, box bridges, abutments, and piers (State Roads Commission 1912). Slab spans, with lengths of 6 to 16 feet in two foot increments, featured a solid parapet that was integrated into the slab, with a roadway of 22 feet.

In the Report for the years 1916-1919, a revision of the standard plans was noted:

During the four years covered by this report, it has been found necessary to revise our standard plans for culverts and bridges, to take care of the increased tonnage which they have been forced to carry. Army cantonments...increased their operations several hundred per cent, and the brunt of the enormous truck traffic resulting therefrom, was borne by the State Roads of Maryland. In addition to these war activities, freight motor lines from Baltimore to Washington, Philadelphia, New York, and various points throughout Maryland, and the weight of many of these trucks when loaded, was in excess of the loads for which our early bridges were designed (State Roads Commission 1920:56).

Published on separate sheets, the new standard plans (State Roads Commission 1919) for slab bridges reveal that the major changes was an increase in roadway width from 22 feet to 24 feet and a redesign of the reinforcement. The slab spans continued to feature solid parapets integrated into the span. The range of span lengths remained 6 to 16 feet, but the next year (1920) witnessed the issue of a supplemental plan for a 20 foot long slab span (State Roads Commission 1920).

The 1924 standard plans remained in effect until 1930, when the roadway width for all standard plan bridges was increased to 27 feet in order to accommodate the increasing demands of automobile and truck traffic (State Roads Commission 1930). The range of span lengths remained the same, but there were some changes designed to increase load bearing capacities. The reinforcing bars were increased in thickness. Visually, the 1930 design can be distinguished from its predecessors by the pierced concrete railing that was introduced at this time.

When the bridge was built and/or given a major alteration, did it have a significant impact on the growth and development of the area?

Unknown.

Is the bridge located in an area which may be eligible for historic designation and would the bridge add to or detract from the historic/visual character of the potential district?

No. This bridge is not located in an area which may be eligible for historic designation.

Is the bridge a significant example of its type?

No. This bridge is not a significant example of its type. Character defining elements have either been replaced or are in deteriorating condition.

Does the bridge retain integrity of important elements described in Context Addendum?

No. This structure has not retained the integrity of its design because character defining elements have been altered.

Is the bridge a significant example of the work of a manufacturer, designer, and/or engineer?

No. This bridge is not a significant example of work completed by the State Roads Commission.

Should the bridge be given further study before an evaluation of its significance is made?

No further evaluation is necessary to determine National Register significance. However, additional research concerning the history of this bridge and its relationship to the surrounding landscape may be useful in providing a more complete picture of the bridge's background.

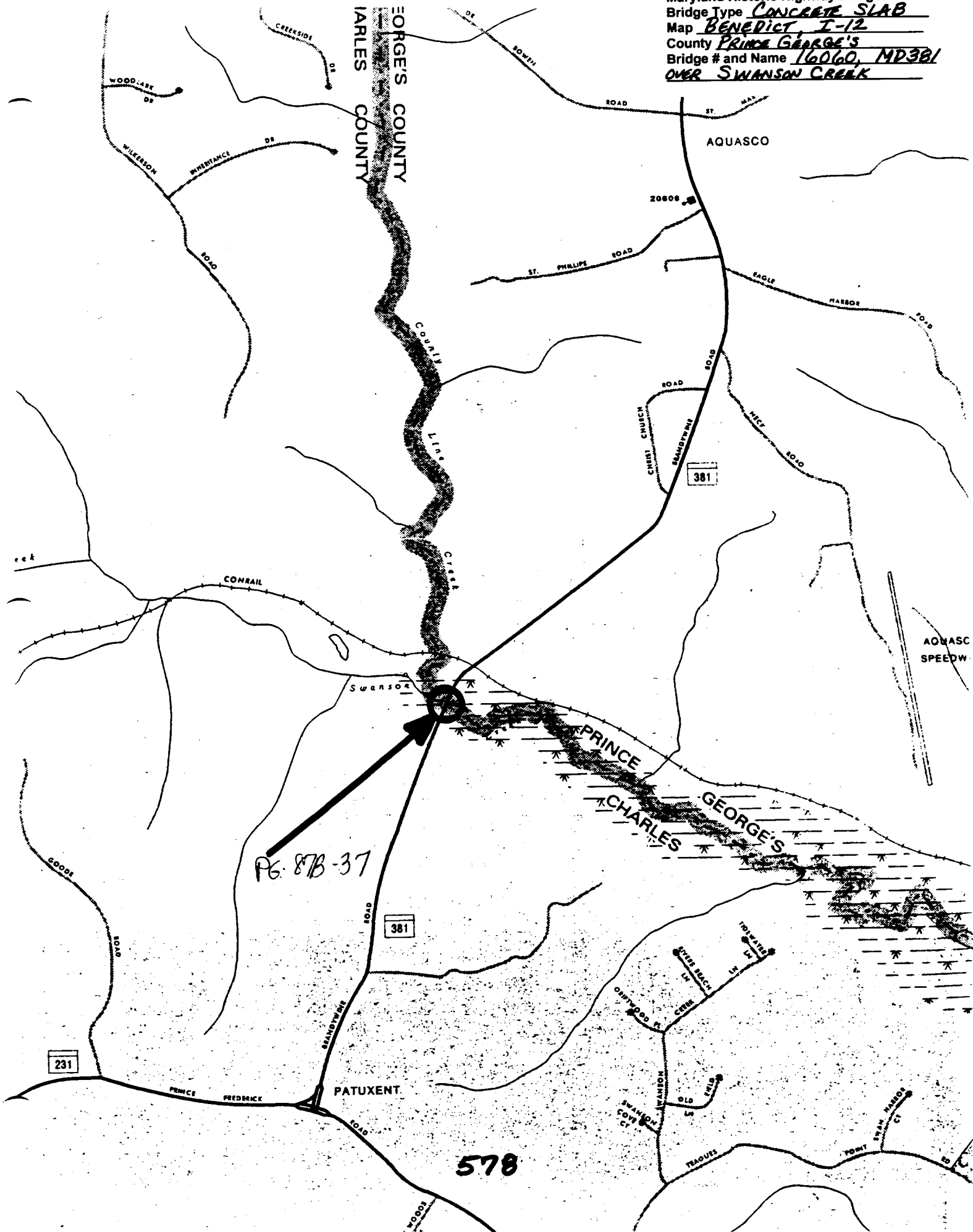
BIBLIOGRAPHY:

County inspection/bridge files _____ SHA inspection/bridge files X
Other (list): _____

SURVEYOR:

Date bridge recorded August 1995
Name of surveyor Leo Hirrell
Organization/Address P.A.C. Spero & Company; 40 West Chesapeake Avenue, Suite 412;
Baltimore, Maryland 21204
Phone number 410-296-1635 FAX number 410-296-1670

Maryland Historic Highway Bridges
Bridge Type CONCRETE SLAB
Map BENEDICT, I-12
County PRINCE GEORGE'S
Bridge # and Name 16060, MD381
OVER SWANSON CREEK





Ardenmore to
Prince George, County
10.7 mi.

Inventory # PG: 87B-37

Name 16060-MD381 OVER SWANSON CREEK

County/State PRINCE GEORGES COUNTY/MD

Name of Photographer WALLY KING

Date 1/95

Location of Negative SHA

Description SOUTH APPROACH LOOKING
NORTH

Number 1 of 4



Inventory # PG:87B-37

Name 1606D-MD381 OVER SWANSON CREEK

County/State PRINCE GEORGES COUNTY / MD

Name of Photographer WALLY KING

Date 1/95

Location of Negative SNA

Description WEST ELEVATION

Number 220 of 4



Inventory # PG:87B-37

Name 16060-MD381 OVER SWANSON CREEK

County/State PRINCE GEORGES COUNTY / MD

Name of Photographer WALLY KING

Date 1/95

Location of Negative SHA

Description NORTH APPROACH LOOKING
SOUTH

Number 3 of 4
21 of 22

111 R. W. POLIZZI WOODBRIDGE



Inventory # PG:87B-37

Name 16060-MD 381 OVER SWANSON CREEK

County/State PRINCE GEORGES COUNTY/MD

Name of Photographer WALLY KING

Date 1/95

Location of Negative SHA

Description EAST ELEVATION

Number ⁴22 of ⁴22

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